ADVANCES IN MATHEMATICS 19, 422–423 (1976)

Book Reviews

P. DRUDE, *The Theory of Optics*, Dover, 1959, 546 pp. Reprint of an old classic. The ideas of geometrical optics are becoming important again, and it is a pleasure to read them in a no-frills, factual yet thorough exposition.

F. HIRZEBRUCH AND D. ZAGIER, *The Atiyah–Singer Theorem and Elementary Number Theory*, Publish or Perish, 1974, 262 pp. The title of this book speaks for itself. It would be foolish not to have it in your library.

C. S. MORAWETZ, *Notes on Time Decay and Scattering for some Hyperbolic Problems*, SIAM, 1975, 81 pp. A model of clarity and readability, will make a good introduction to hyperbolic partial differential equations if you want to know what they are, and you should.

J. KERSTAN, K. MATTHES, AND J. MECKE, *Unbegrenzt teilbare Punkt-prozesse*, Akademie–Verlag, 1974, 420 pp. The first really thorough and systematic account of the theory of point stochastic processes, one of the most active current branches of probability.

L. ARNOLD, *Stochastic Differential Equations*, Wiley, 1974, 228 pp. The theory of stochastic differential equations is probably the least known and most difficult branch of probability. No wonder: The stochastic differential calculus requires a whole new bag of algebraic tricks, not to speak of the analysis. This book eases the reader into the middle of the subject and gets him ready to scale the less accessible peaks.

A. BECK, *Continuous Flows in the Plane*, Springer, 1974, 462 pp. Topological- and differentiable-dynamics has come a long way since the pioneering work of Hedlund and Morse. Beck treats a number of offbeat but extremely elegant topics, complementary to the material summarized in the recent reports by L. Markus and Smale.

H. M. EDWARDS, *Riemann's Zeta Function*, Academic Press, 1974, 315 pp. The first book on the subject since Titchmarsh's. Readable and discursive, but unfortunately published just before N. Levinson's epoch-making proof that over one-third of the zeros lie on the critical line (published in this Journal in 1974).

R. C. WALKER, *The Stone–Cech Compactification*, Springer, 1974, 332 pp. The Stone–Cech compactification is getting a good press of late. The reviewer recalls how, upon first learning it as a graduate student, he rashly concluded that, elegant though the construction was, it could never have significant applications. Well, he is now happy to eat his words after perusing this admirably thorough book.

P. GRIFFITHS AND J. ADAMS, *Topics in Algebraic and Analytic Geometry*, Princeton, 1974, 219 pp. Why isn't a book like this published in hard cover? It is far more readable than most of the hard-cover pedantry that is pushed under the guise of texts. Also, it seems ludicrous to label the series to which this book belongs "Preliminary Informal Notes." Most volumes are about as informal as van der Waerden's Algebra.

Copyright © 1976 by Academic Press, Inc.
All rights of reproduction in any form reserved.